

IN THE CLAIMS:

Please cancel Claims 2-5, 16, 17, 33-43, 48 and 52 without prejudice.

Please amend Claims 1, 6-15, 18-32, 44-47 and 49-51 as follows:

1. (Amended) A coated substrate comprising:

a base substrate;

one or more ink receptive layer(s);

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an undercoat layer positioned between said base substrate and said one or more ink receptive layer(s); and

a barrier layer positioned between said undercoat layer and said one or more ink receptive layer(s),

wherein said one or more ink receptive layer(s) comprises one or more materials selected from the group of hydrophilic polymers consisting of polyvinyl alcohol, gelatin, methylcellulose, hydroxyethylcellulose, propylhydroxycellulose, and polyvinyl pyrrolidone.

comprises:

6. (Amended) The coated substrate of claim 1 wherein said barrier layer

one or more monomer(s);

one or more oligomer(s); and

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one or more photoinitiator(s).

7. (Amended) The coated substrate of claim 6 wherein said one or more monomer(s) comprises one or more of the group consisting of a urethane, an epoxy and an acrylate.

8. (Amended) The coated substrate of claim 6 wherein said one or more oligomer(s) comprises one or more of the group consisting of a urethane, an epoxy and an acrylate.

9. (Amended) The coated substrate of claim 6 wherein said one or more monomer(s) is between about 1 and about 100 dry percent of said barrier layer.

10. (Amended) The coated substrate of claim 6 wherein said one or more oligomer(s) is between about 1 and about 100 dry percent of said barrier layer.

11. (Amended) The coated substrate of claim 6 wherein said one or more photoinitiator(s) is between about 1 and about 20 dry percent of said barrier layer.

12. (Amended) The coated substrate of claim 1 wherein said barrier layer is treated with:

a corona discharge.

13. (Amended) The coated substrate of claim 1 wherein said barrier layer is treated with:

flame treatment.

14. (Amended) The coated substrate of claim 1 wherein said barrier layer is treated with:

subbing coating.

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15. (Amended) The coated substrate of claim 1, said one or more ink receptive layer(s) comprising one or more absorbent materials. ← cationic polymer

18. (Amended) The coated substrate of claim 1 wherein said one or more ink receptive layer(s) further comprises one or more cationic polymer material(s) selected from the group consisting of polydadmecs, polyamides, and polyamines.

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19. (Amended) The coated substrate of claim 1 wherein said hydrophilic polymer is between about 10 and about 100 dry percent of said one or more ink receptive layer(s).

20. (Amended) The coated substrate of claim 18 wherein said one or more cationic polymer material(s) is between about 0.1 and about 20 dry percent of said one or more ink receptive layer(s).

21. (Amended) The coated substrate of claim 1 wherein said one or more ink receptive layer(s) further comprises one or more latex binder(s) selected from the group consisting of styrene butadiene, polyvinyl acetate, acrylic, vinyl-acetate, ethylene-vinyl chloride, and (urethane).

22. (Amended) The coated substrate of claim 21 wherein said one or more latex binder(s) is between about 0 and about 30 dry percent of said one or more ink receptive layer(s).

23. (Amended) The coated substrate of claim 1 wherein said one or more ink receptive layer(s) further comprises one or more cross linking agent(s) selected from the group consisting of aziradines and chrom alum.

24. (Amended) The coated substrate of claim 23 wherein said one or more cross-linking agent(s) is between about 0.01 and about 20 dry percent of said one or more ink receptive layer(s).

25. (Amended) The coated substrate of claim 1 wherein said one or more ink receptive layer(s) further comprises one or more inorganic pigment(s) selected from the group consisting of colloidal silica, precipitated silica, fumed silica, gel silica, clay, an alumina, and a calcium carbonate.

26. (Amended) The coated substrate of claim 25 wherein said one or more inorganic pigment(s) is between about 0 and about 75 dry percent of said one or more ink receptive layer(s).

27. (Amended) The coated substrate of claim 1 wherein said one or more ink receptive layers(s) further comprises one or more color pigmented and brightener dye.

28. (Amended) The coated substrate of claim 1 wherein said one or more ink receptive layers(s) further comprises one or more flow agent(s).

29. (Amended) The [composition] coated substrate of claim 1 wherein said one or more ink receptive layers(s) further [comprising] comprises one or more coating additive(s).

30. (Amended) The coated substrate of claim 1 wherein said one or more ink receptive layers(s) is coated at a coat weight of between about 1 and about 50 dry gsm.

31. (Amended) The coated substrate of claim 1 wherein said one or more ink receptive layers(s) further comprises a plasticizer.

32. (Amended) The coated substrate of claim 1, further comprising one or more anti-curl layer(s) applied to a side of said base substrate, said side opposite a side on which said undercoat layer is positioned.

44. (Amended) The coated substrate of claim 1 wherein said barrier layer has a surface energy of about 48 to about 55 dynes.

✓ 45. (Amended) The coated substrate of claim 1 wherein said barrier layer has a surface energy of about 30 to about 55 dynes.

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✓ 46. (Amended) The coated substrate of claim 1 wherein said barrier layer comprises polyethylene.

✓ 47. (Amended) The coated substrate of claim 1 wherein said barrier layer is cured via one or more of the group consisting of ultraviolet energy and electrom beam energy.

49. (Amended) The coated substrate of claim 1 wherein said barrier layer is coated at a coat weight between about 2 to about 9 dry gsm.

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✓ 50. (Amended) The coated substrate of claim 1 wherein said one or more ink receptive layer(s) is coated at a coat weight between about 1 to about 22 dry gsm.

51. (Amended) The coated substrate of claim 32 wherein said one or more anti-curl layer(s) is coated at a coat weight of about 3 to about 15 dry gsm.

REMARKS

Initially, Applicants would like to thank the Examiner for the careful consideration given this case and for the indication of allowable subject matter in Claims 3-15, 17, 20-27, 30, 32, 44-46 and 49-51. Claims 1-52 are currently pending in this case and are addressed herein. By amendment herein, Claims 1, 6-15, 18-32, 44-47 and 49-51 have been amended. By amendment herein, Claims 2-5, 16, 17, 33-43, 48 and 52 are cancelled without prejudice to later presentation in this or related cases. It is hereby asserted that no new matter has been introduced.